

# Robert Schwartz

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

76 papers	3,468 citations	29 h-index	58 g-index
78 ext. papers	3,635 ext. citations	3 avg, IF	5.04 L-index

#	Paper	IF	Citations
76	Thin-Film Capacitor Technology for Improving Broadband Power Integrity. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2019</b> , 9, 1319-1327	1.7	2
75	Thermodynamics and Heating Processes <b>2013</b> , 343-382		5
74	Design, fabrication and finite element modeling of a new wagon wheel flextensional transducer. <i>Journal of Electroceramics</i> , <b>2010</b> , 24, 205-213	1.5	8
73	MAXWELL GARNETT RULE FOR DIELECTRIC MIXTURES WITH STATISTICALLY DISTRIBUTED ORIENTATIONS OF INCLUSIONS. <i>Progress in Electromagnetics Research</i> , <b>2009</b> , 99, 131-148	3.8	24
72	Prediction of Effective Permittivity of Diphasic Dielectrics as a Function of Frequency. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , <b>2009</b> , 16, 793-808	2.3	16
71	Prediction of effective permittivity of diphasic dielectrics using an equivalent capacitance model. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 074108	2.5	36
70	Finite Element Modeling of a Donut Flextensional Transducer. <i>Journal of the American Ceramic Society</i> , <b>2007</b> , 90, 850-857	3.8	3
69	Stress-Biased Cymbals Using Shape Memory Alloys. <i>Journal of the American Ceramic Society</i> , <b>2007</b> , 90, 1122-1129	3.8	
68	Effect of Liquid-Phase Sintering on the Breakdown Strength of Barium Titanate. <i>Journal of the American Ceramic Society</i> , <b>2007</b> , 90, 1504-1510	3.8	111
67	Derivation and Application of an Empirical Formula to Describe Interfacial Relaxation Effects in Inhomogeneous Materials. <i>Journal of the American Ceramic Society</i> , <b>2007</b> , 90, 3536-3540	3.8	11
66	Mechanical vs. electrical failure mechanisms in high voltage, high energy density multilayer ceramic capacitors. <i>Journal of Materials Science</i> , <b>2007</b> , 42, 5613-5619	4.3	91
65	Dielectric response of Sr doped CaCu <sub>3</sub> Ti <sub>4</sub> O <sub>12</sub> ceramics. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 112901	3.4	35
64	Maxwell-Wagner relaxations and their contributions to the high permittivity of calcium copper titanate ceramics. <i>Physical Review B</i> , <b>2007</b> , 75,	3.3	108
63	ac conductivity relaxation processes in CaCu <sub>3</sub> Ti <sub>4</sub> O <sub>12</sub> ceramics: Grain boundary and domain boundary effects. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 242906	3.4	122
62	MODELING OF DIELECTRIC MIXTURES CONTAINING CONDUCTING INCLUSIONS WITH STATISTICALLY DISTRIBUTED ASPECT RATIO. <i>Progress in Electromagnetics Research</i> , <b>2006</b> , 66, 213-228	3.8	27
61	STRESSED-BIASED ACTUATORS: FATIGUE AND LIFETIME. <i>Integrated Ferroelectrics</i> , <b>2005</b> , 71, 249-255	0.8	3
60	STRESSED-BIASED ACTUATORS: LATERAL STRESS AND LOADING EFFECTS. <i>Integrated Ferroelectrics</i> , <b>2005</b> , 71, 207-219	0.8	1

59	Chemical solution deposition of electronic oxide films. <i>Comptes Rendus Chimie</i> , <b>2004</b> , 7, 433-461	2.7	385
58	Thermal properties of La <sub>0.55</sub> Sr <sub>0.5</sub> Co <sub>1-x</sub> Ni <sub>x</sub> O <sub>3</sub> ceramics using photopyroelectric technique. <i>Journal of Applied Physics</i> , <b>2003</b> , 94, 3206-3211	2.5	16
57	Growth and optical properties of SrBi <sub>2</sub> Nb <sub>2</sub> O <sub>9</sub> ferroelectric thin films using pulsed laser deposition. <i>Journal of Applied Physics</i> , <b>2003</b> , 93, 9226-9230	2.5	22
56	Development of high performance stress-biased actuators through the incorporation of mechanical pre-loads. <i>Sensors and Actuators A: Physical</i> , <b>2002</b> , 101, 322-331	3.9	35
55	Short residence time graphitization of mesophase pitch-based carbon fibers. <i>Carbon</i> , <b>2002</b> , 40, 1217-1226	3.4	32
54	Electrical properties of SrBi <sub>2</sub> Ta <sub>2</sub> O <sub>9</sub> ferroelectric thin films at low temperature. <i>Applied Physics Letters</i> , <b>2002</b> , 81, 4583-4585	3.4	38
53	Optical limiting in SrBi <sub>2</sub> Ta <sub>2</sub> O <sub>9</sub> and PbZr <sub>x</sub> Ti <sub>1-x</sub> O <sub>3</sub> ferroelectric thin films. <i>Applied Physics Letters</i> , <b>2002</b> , 80, 3394-3396	3.4	45
52	Domain configuration and switching contributions to the enhanced performance of rainbow actuators <b>2001</b> ,		4
51	Estimation of the Effective d <sub>31</sub> Coefficients of the Piezoelectric Layer in Rainbow Actuators. <i>Journal of the American Ceramic Society</i> , <b>2001</b> , 84, 2563-2569	3.8	28
50	Development Of Transparent Lsco and Lscno Conductors for Optical Shutter Systems. <i>Materials Research Society Symposia Proceedings</i> , <b>2001</b> , 666, 1171		1
49	Evaluation of LSCO Electrodes for Sensor Protection Devices. <i>Materials Research Society Symposia Proceedings</i> , <b>2000</b> , 623, 365		2
48	Microscopical Study of the Structural Evolution of Sol-Gel Derived Buffer Layers for the Integration of YBCO on Biaxially Textured Nickel. <i>Materials Research Society Symposia Proceedings</i> , <b>2000</b> , 619, 209		1
47	UV Radiation Effects on the Sol-Gel Processing of Ferroelectric PZT Thin Films. <i>Materials Research Society Symposia Proceedings</i> , <b>2000</b> , 623, 149		
46	Compositional profiling of solution-deposited lead zirconate-titanate thin films by radio-frequency glow discharge atomic emission spectroscopy (rf-GD-AES). <i>Chemical Physics Letters</i> , <b>2000</b> , 318, 481-487	2.5	4
45	Phonon sideband spectroscopy and 1550 nm luminescence from Eu <sup>3+</sup> and Er <sup>3+</sup> -doped ferroelectric PLZT for active electro-optic applications. <i>Journal of Luminescence</i> , <b>2000</b> , 86, 101-105	3.8	30
44	Grain oriented crystallization, piezoelectric, and pyroelectric properties of (Ba <sub>x</sub> Sr <sub>2-x</sub> )TiSi <sub>2</sub> O <sub>8</sub> glass ceramics. <i>Journal of Applied Physics</i> , <b>1999</b> , 85, 8343-8348	2.5	21
43	Control of Microstructure and Orientation in Solution-Deposited BaTiO <sub>3</sub> and SrTiO <sub>3</sub> Thin Films. <i>Journal of the American Ceramic Society</i> , <b>1999</b> , 82, 2359-2367	3.8	126
42	Depth Profiling of Solution-Deposited Lead Zirconate Titanate Thin Films by Radio Frequency Glow Discharge Atomic Emission Spectroscopy (RF-GDAES). <i>Materials Research Society Symposia Proceedings</i> , <b>1999</b> , 596, 399		

41	Metal-organic chemical vapor deposition of SrTiO <sub>3</sub> films on porous substrates. <i>Journal of Materials Research</i> , <b>1998</b> , 13, 173-179	2.5	23
40	Aging characteristics of a hybrid sol-gel Pb(Zr, Ti)O <sub>3</sub> precursor solution. <i>Journal of Materials Research</i> , <b>1997</b> , 12, 1022-1030	2.5	29
39	A comparison of diol and methanol-based chemical solution deposition routes for PZT thin film fabrication. <i>Integrated Ferroelectrics</i> , <b>1997</b> , 18, 275-286	0.8	17
38	Chemical Solution Deposition of Perovskite Thin Films. <i>Chemistry of Materials</i> , <b>1997</b> , 9, 2325-2340	9.6	441
37	Comments on the effects of solution precursor characteristics and thermal processing conditions on the crystallization behavior of sol-gel derived lead zirconate titanate thin films. <i>Journal of Materials Research</i> , <b>1997</b> , 12, 444-456	2.5	117
36	CVD of CeO <sub>2</sub> -Doped Y <sub>2</sub> O <sub>3</sub> -Stabilized Zirconia onto Dense and Porous Substrates. <i>Chemical Vapor Deposition</i> , <b>1997</b> , 3, 311-317		10
35	Catalytic Dehydrogenation of Propane in Hydrogen Permselective Membrane Reactors. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>1996</b> , 35, 4398-4405	3.9	116
34	Integrated Decoupling Capacitors Using Pb(Zr,Ti)O <sub>3</sub> Thin Films. <i>Materials Research Society Symposia Proceedings</i> , <b>1996</b> , 433, 305		6
33	Aerosol-assisted chemical vapor deposition of CeO <sub>2</sub> -doped Y <sub>2</sub> O <sub>3</sub> -stabilized ZrO <sub>2</sub> films on porous ceramic supports for membrane applications. <i>Chemical Vapor Deposition</i> , <b>1996</b> , 2, 48-51		4
32	Solution Deposition of Ferroelectric Thin Films. <i>MRS Bulletin</i> , <b>1996</b> , 21, 49-54	3.2	77
31	Microstructural development in sol-gel derived lead zirconate titanate thin films: The role of precursor stoichiometry and processing environment. <i>Journal of Materials Research</i> , <b>1996</b> , 11, 2076-2084	2.5	87
30	Sol-gel derived ceramic films [Fundamentals and applications <b>1996</b> , 112-151		11
29	Angularly and Spectrally Resolved Light Scattering from Lead Zirconate Titanate Thin Films. <i>Journal of the American Ceramic Society</i> , <b>1995</b> , 78, 2027-2032	3.8	8
28	Polarization suppression in Pb(Zr,Ti)O <sub>3</sub> thin films. <i>Journal of Applied Physics</i> , <b>1995</b> , 77, 6695-6702	2.5	204
27	Light scattering from Sol-gel processed lead zirconate titanate thin films. <i>Integrated Ferroelectrics</i> , <b>1995</b> , 7, 225-236	0.8	2
26	Light scattering from sol-gel Pb(Zr,Ti)O <sub>3</sub> thin films: Surface versus volume scattering. <i>Integrated Ferroelectrics</i> , <b>1995</b> , 11, 25-34	0.8	3
25	Synthesis and Structure of Novel Group IV Tridentate Alkoxide Complexes and Ceramic Thin Films Derived Therefrom. X-ray Structures of (H <sub>3</sub> CC(CH <sub>2</sub> -μ <sub>3</sub> -O)(CH <sub>2</sub> -μ <sub>2</sub> -O) <sub>2</sub> ) <sub>2</sub> Ti <sub>4</sub> (OCH(CH <sub>3</sub> ) <sub>2</sub> ) <sub>10</sub> , (H <sub>3</sub> CCH <sub>2</sub> C(CH <sub>2</sub> -μ <sub>3</sub> -O)(CH <sub>2</sub> -μ <sub>2</sub> -O) <sub>2</sub> ) <sub>2</sub> Ti <sub>4</sub> (OCH(CH <sub>3</sub> ) <sub>2</sub> ) <sub>10</sub> , and (H <sub>3</sub> CC(CH <sub>2</sub> -μ <sub>3</sub> -O) <sub>3</sub> ) <sub>2</sub> Zr <sub>4</sub> (μ <sub>3</sub> -OCH(CH <sub>3</sub> ) <sub>2</sub> ) <sub>2</sub> (OCH(CH <sub>3</sub> ) <sub>2</sub> ) <sub>8</sub> . <i>Inorganic Chemistry</i> , <b>1995</b> , 34, 1110-1120	5.1	61
24	Sol-gel processing of PZT thin films: A review of the state-of-the-art and process optimization strategies. <i>Integrated Ferroelectrics</i> , <b>1995</b> , 7, 259-277	0.8	82

23	Photoinduced hysteresis changes and optical storage in (Pb,La)(Zr,Ti)O <sub>3</sub> thin films and ceramics. <i>Journal of Applied Physics</i> , <b>1994</b> , 76, 4305-4315	2.5	242
22	Formation of perovskite phase mixed metal oxides via thermal decomposition of metal-organic complexes with bifunctional ligands. <i>Journal of Sol-Gel Science and Technology</i> , <b>1994</b> , 2, 305-309	2.3	3
21	Control of Leakage Resistance in Pb(Zr,Ti)O <sub>3</sub> Thin Films by Donor Doping. <i>Journal of the American Ceramic Society</i> , <b>1994</b> , 77, 3000-3005	3.8	60
20	Electro-optical and optical evaluation of Pb(Zr, Ti)O <sub>3</sub> thin films using waveguide refractometry. <i>Journal of Non-Crystalline Solids</i> , <b>1994</b> , 178, 69-76	3.9	14
19	An Investigation of Group (IV) Alkoxides as Property Controlling Reagents in the Synthesis of Ceramic Materials. <i>Comments on Inorganic Chemistry</i> , <b>1994</b> , 16, 243-278	3.9	22
18	Formation, Structure, and Material Properties From the Reaction Product of M(OCHMe <sub>2</sub> ) <sub>4</sub> (M=Ti, Zr) and HOAc. <i>Materials Research Society Symposia Proceedings</i> , <b>1994</b> , 346, 35		5
17	Effects of Acetylacetone Additions on PZT Thin Film Processing. <i>Materials Research Society Symposia Proceedings</i> , <b>1994</b> , 361, 377		18
16	Preparation and properties of sol-gel derived PZT thin films for decoupling capacitor applications. <i>Integrated Ferroelectrics</i> , <b>1994</b> , 4, 165-174	0.8	12
15	Ferroelectric thin film microstructure development and related property enhancement. <i>Ferroelectrics</i> , <b>1994</b> , 151, 11-20	0.6	10
14	Proton and carbon-13 NMR investigations of lead zirconate titanate (Pb(Zr,Ti)O <sub>3</sub> ) thin-film precursor solutions. <i>Chemistry of Materials</i> , <b>1993</b> , 5, 511-517	9.6	106
13	Microstructural Evolution of Pb(Zr,Ti)O <sub>3</sub> Ceramics Using Electron Paramagnetic Resonance. <i>Materials Research Society Symposia Proceedings</i> , <b>1993</b> , 310, 3		2
12	Solution Chemistry Optimization of Sol-Gel Processed PZT Thin Films. <i>Materials Research Society Symposia Proceedings</i> , <b>1993</b> , 310, 275		9
11	Rare-Earth Doping by Ion Implantation and Related Techniques. <i>Materials Research Society Symposia Proceedings</i> , <b>1993</b> , 310, 59		5
10	Microstructural evolution of Pb(Zr, Ti)O <sub>3</sub> thin films prepared by hybrid metallo-organic decomposition. <i>Journal of Materials Research</i> , <b>1992</b> , 7, 1876-1882	2.5	108
9	Solution chemistry effects in Pb(Zr, Ti)O <sub>3</sub> thin film processing. <i>Integrated Ferroelectrics</i> , <b>1992</b> , 2, 243-254	0.8	60
8	Raman analysis of microcircuits with lead zirconate titanate (PZT) films. <i>Proceedings Annual Meeting Electron Microscopy Society of America</i> , <b>1992</b> , 50, 1688-1689		
7	Spectroscopic and Microstructural Characterization of Solution Chemistry Effects in Pzt Thin Film Processing. <i>Materials Research Society Symposia Proceedings</i> , <b>1991</b> , 243, 245		43
6	Preparation and characterization of chemically derived (Pb,La)TiO <sub>3</sub> thin films. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , <b>1991</b> , 38, 677-83	3.2	29

5	The Effects of Hydrolysis Conditions, and Acid and Base Additions, on the Gel-To-Ceramic Conversion in Sol-gel Derived PbTiO <sub>3</sub> . <i>Materials Research Society Symposia Proceedings</i> , <b>1990</b> , 180, 335	10
4	Crystallization Behavior of Chemically Prepared and Rapidly Solidified PbTiO <sub>3</sub> . <i>Materials Research Society Symposia Proceedings</i> , <b>1988</b> , 121, 199	4
3	Chemical Solution Deposition Basic Principles 33-76	2
2	Impact of Solution Chemistry on Successfully Depositing SOL-GEL PZT Films Directly on Copper Surfaces. <i>Ceramic Transactions</i> , 359-369	0.1
1	Control of Thin Film Processing Behavior Through Precursor Structural Modifications. <i>Ceramic Engineering and Science Proceedings</i> , 1045-1056	0.1 12